Joint Service Lightweight Standoff Chemical Agent Detector (JSLSCAD)

Description:

- State-of-the-art detection system designed to provide U.S. Forces with enhanced capability in detecting chemical warfare agent
- Lightweight, passive, and fully automatic detection system that scans the surrounding atmosphere for chemical warfare agent vapors.
- Furnishes on-the-move, 360º coverage from a variety of tactical and reconnaissance platforms at distances up to 5 km
- Second-generation system that significantly improves on the capabilities of the currently-fielded M21 Automatic Chemical Agent Alarm
- Provide warfighters with enhanced early warning to avoid chemically-contaminated battle spaces
- Will give personnel extra time to don MOPP Gear

Capabilities:

- Detects nerve and blister agent vapor clouds
- Mounts on land, sea, and air platforms
- Provides 360º by 60º on-the-move coverage
- Provides 5 km detection range
- No operator required
- Automatic warning and reporting through JWARN

AN/UDR-13 Pocket Radiac

Description:

- Compact, hand-held, or pocket-carried tactical device capable of measuring prompt gamma/neutron dose from a nuclear event plus gamma dose and dose-rate from nuclear fallout
- Push-button pad enables mode selection, functional control, and the setting of audio and visual alarm thresholds for both dose-rate and mission dose
- Sleep mode/automatic wake up is provided to enhance battery life
- Data readout and warning mode messages are provided by liquid crystal display
- Improvements over the IM-93
  - Measures prompt dose including neutrons
  - Has alarms and measures rate
  - Does not require separate charger
  - Backlit display

Capabilities:

- Combined rate meter and tactical dosimeter
- Audio and visual rate and dose alarm settings
- Measures dose rate from 0.1-999cGy/hr
- Measures total dose from 0.1-999cGy

PDDS Mission Statement...

The Product Director for Detection manages and directs all aspects concerning development, production, and initial fielding of new and major modifications and product improvements of detection systems. Programs cover all technical disciplines in all phases (tech base, development, production, and sustainment) of the acquisition life cycle. The program includes interface with the other services, actively seeks joint development possibilities and encompasses international cooperative development, to include foreign military sales.

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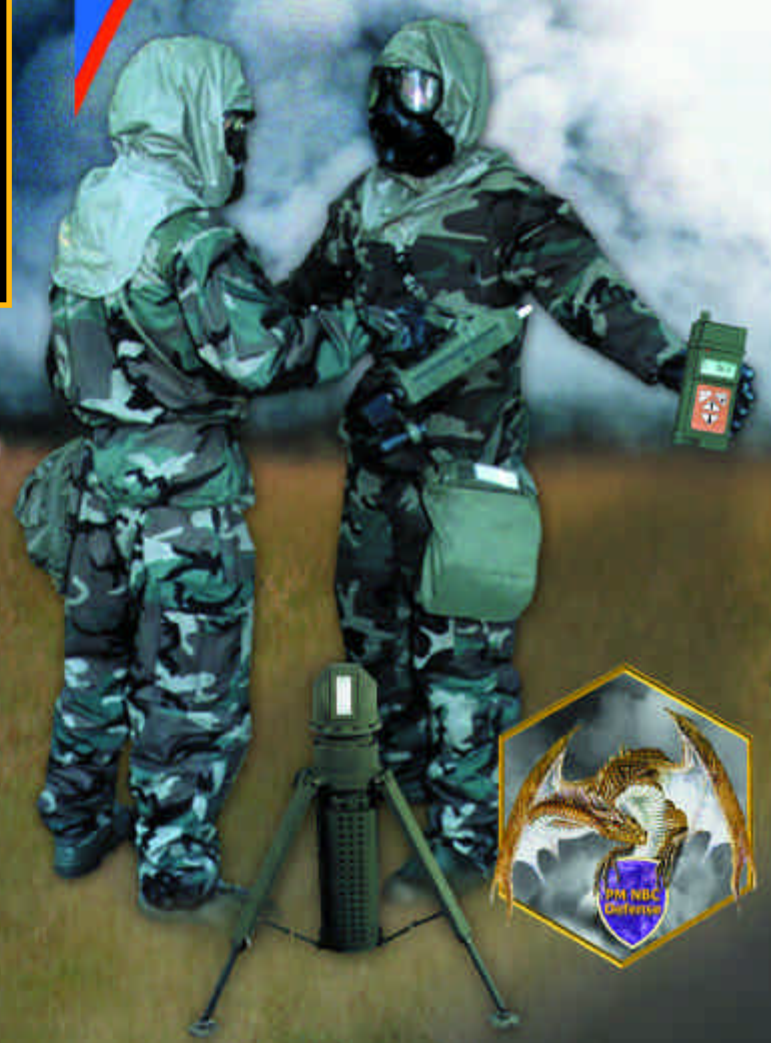
Product Director Detection Systems



PRODUCT DIRECTOR DETECTION SYSTEMS

Product Director Detection Systems

Multi-purpose Integrated Chemical Agent Detector (MICAD)

Description:

- An integrated nuclear, biological, and chemical detection, warning and reporting system to be employed in area warning, combat and armored vehicles, and tactical van and shelter mission profiles
- Automates the currently laborious NBC warning and reporting process throughout the battlefield
- Automates the gathering of NBC contamination data from fielded NBC detector/sensors and automatically formats and transmits alarms and reports up the chain of command throughout the battlefield
- Maneuver Control System (MCS) compatible

Capabilities:

- Operates with M22 and AN/VDR-2 Radiac Set
- Samples internal and external vehicles, vans, and shelter (VVS) environments
- Interface with GPS vehicle navigation systems and modular collective protection equipment with VVS
- Automates the NBC report preparation (NBC-1/NBC-4) and transmission process from platoon to battalion level
- Maneuver Control System (MCS) and JWARN-NDI compatible
- Flexible design allows use in area warning role with Telemetry Link Radio (TLR)

Joint Warning and Reporting Network (JWARN)

Mission:

- Provide joint forces with a comprehensive NBC warning, reporting, and analysis capability

Description:

- A combination of systems linking NBC detectors to tactical communications and providing NBC warning, reporting, and battlefield management

Capabilities:

- NBC warning and reporting
- NBC battlefield management
- Integration of NBC detectors to the C412 network

Improved Chemical Agent Monitor (ICAM)

Description:

- A hand-held, soldier-operated, post-attack device for monitoring chemical agent contamination on personnel and equipment
- Detects vapors of chemical agents by sensing molecular ions of specific mobilities (time of flight)
- Uses timing and microprocessor techniques to reject interferences
- Detects and discriminates between vapors of nerve and mustard agents
- Consists of a drift tube, signal processor, molecular sieve, membrane, confidence tester, dust filters, buzzer, and battery pack
- Measures 4”x7”x15” and weighs approximately 5 lbs

Improvements over original CAM:

- 300% improved reliability
- Reduced maintenance cost
  - $135M cost avoidance over life cycle
- Fix forward-modular repair
  - Eliminates need for depot repair

Capabilities:

- Instantaneous feedback of chemical hazard level
- Quickly determine contamination (or not) of front-line assets (personnel and equipment)
- Reduces need for decontamination operations
- Real-time detection of nerve and blister agents

M22 Automatic Chemical Agent Alarm (ACADA)

Description:

- An off-the-shelf, automatic chemical agent alarm system capable of detecting and identifying standard blister and nerve agents
- Man-portable, operates independently after system start-up, and provides an audible and visual alarm
- Provides a communications interface for automatic battlefield warning and reporting

Capabilities:

- Area warning
- Collective protection equipment (shelter) monitoring
- Operation on and in vehicles
- Compatible with MICAD

Improvements over the M8A1:

- Provides simultaneous detection and warning of nerve and blister agents
- Significantly more sensitive than M8A1
- Operates in a collective protection environment
- Much less response to interference

Joint Chemical Agent Detector (JCAD)

Mission:

- Advanced detection and warning, identification of contamination on personnel and equipment, and monitoring for the presence of chemical warfare agent contamination

Description:

- A combined portable monitoring and small point chemical agent detector for aircraft, shipboard, and individual soldier applications
- Hand-held, pocket-sized detector can automatically detect, identify, and quantify chemical agents inside the aircraft or ship
- Provides protection for the individual soldier, sailor, airman, or marine
- For the duration of the mission, the device must be sufficiently sensitive to warn aircrews before accumulation of a dose that will cause miosis or more severe effects
- Must be resistant to the severe interferent environment on a naval base and be small and rugged for individual use

Capabilities:

- Instant feedback of hazard (mask only or full MOPP)
- Real-time detection of nerve, blister, and blood agents
- Miosis-level detection capability
- Calculates accumulated dosage
- Store up to 72 hours of detection data
- Fully compatible with JWARN
- Replaces the M8A1 Alarm, M22 ACADA, and the CAM/ICAM